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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

March 26, 2012

Ron Wunderlich
C. S. Mining, LLC
1208 South 200 West
Milford, Utah 84751

Subject: First Review of Amended Notice of Intention to Commence Large Mining Operations, C.S. Mining LLC, Hidden Treasure Mine, M/001/0067, Beaver County, Utah

Dear Mr. Wunderlich:

The Division of Oil, Gas and Mining has completed a review of your amended Notice of Intention to Commence Large Mining Operations for the Hidden Treasure mine, which was received January 18, 2012. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages of the original mining notice using redline and strikeout text. After the notice is determined technically complete, the Division will ask that you submit two clean copies of the complete and corrected plan. Upon final approval, the Division will return one copy stamped "approved" for your records.

Please submit your response to this review by April 20, 2012.

The Division will suspend further review until your response to this letter is received. Please contact me at 801-538-5261 or Tom Munson, at 801-538-5321 if you have questions about the review. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker
Minerals Program Manager

PBB: tm: eb
Attachment: Review
cc: eginouve@blm.gov
P:\GROUPS\MINERALS\WP\M001-Beaver\M0010067-HiddenTreasure\final\Amend-4594-02062012.doc



**REVIEW OF NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

**C.S. Mining, LLC
Hidden Treasure Mine
M/001/0067
March 23, 2012**

R647-4-105 - Maps, Drawings & Photographs

General Map Comments

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1	Figure 1,2,3,4	These maps need to be updated to be accurate. These are old figures from the previous plan that have been changed or updated. All figures that have been replaced or superseded should be removed.	TM	
2	Figure 1	The Figure shows three things, the patented lands, mine permit area and the mine boundary. These titles should be changed to reflect accurate information. The "permit area" implies all clearances have been granted within this boundary; if this is not the case, it should be clearly stated; otherwise this boundary has no meaning. The "mine boundary" should be changed the Mine Bonded Area.	whw	
3	Figure 4a,7,9,10,11,12,14	This map needs a legend and the claims names removed	TM	
4	General Comment	The Division requests that you provide plastic map holders as the paper ones are tearing and need to be replaced.		

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
5		The figures showing the waste dump have no cross sections, so slopes cannot be determined accurately.		
6	Page 7 and Figure 13a	The acreage figures for the Bawana dump are not clear. Page 7 of the text says it will be expanded from 16.61 to 22.9 acres, an increase of 6.29 acres, but based on Figure 13A, it appears the increase is 22.87 acres for a total of 39.48 acres. Please clarify.	pbb	

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Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
7	Figures 4a and 5	The acreage figures shown on these maps need to be clarified. Both maps show an area called "Toe of Existing Waste Dump Area" with an acreage figure of 30.65 acres. Does this figure include the original waste dump area? The "Proposed Toe of Waste Dump Area" is shown as being 45.3 acres, but from the maps it is not clear whether this acreage figure is just for this additional area or for the entire waste dump area. Page 7 of the text appears to make it clear that it refers to the entire area possibly excluding the existing waste dump (see comment above). The "Post Reclamation Toe" area shown on Figure 5 should also be included on 4a.	pbb	
8	omission	As per R647-4-105.3, include a geologic map and a stratigraphic column.	TM	
9	omission	Include slope angles on the cross sections for both pre- and post-reclamation slopes.	TM	

R647-4-106 - Operation Plan

General Operation Comments

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
10		Please completely fill out form MR-REV. The Division will need this information to update the plan.	whw	
11		The amendment should be written as if it had been approved. For example on Table 1 the plan lists existing and proposed acreages. If the amendment is approved the proposed acreage would become approved.	whw	

106.2 - Type of operations conducted, mining method, processing etc.

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
12		Please list all buildings and other equipment that will be used during operations. That information is needed to calculate the bond. Please have a table that shows the buildings and equipment and an operational map that also shows those items. The same list should be in the bonding section.	whw	
13		The amount of material that will be moved during reclamation.	whw	

106.3 - Estimated acreages disturbed, reclaimed, annually

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
14		All acreages between the text, table1 and the figures need to be accurate and same	TM	

106.6 - Plan for protecting & re-depositing soils

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
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Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
15	Figures 5 and 13a	<p>Please show the locations of existing and proposed soil stockpiles on these maps.</p> <p>Figure 4a shows soil stockpile locations in the area of the Hidden Treasure mine although, with no legend, it is difficult to determine that the blue areas are soil stockpiles. This information should also be shown on Figure 5.</p> <p>In addition, some of the stockpiles shown on Figures 4a and 14a are within the dump expansion area. Please show where these stockpiles will be moved to and also show the stockpile location for soil salvaged from the expansion area.</p>	pbb	
16	Page 26	The plan includes an interim seed mix for the topsoil piles, but it should give more detail about revegetating the piles, such as surface preparation, timing of seeding (fall, right after surface preparation), and weed control. It is common for soil piles to be seeded then forgotten, and weeds that establish on the soil piles lead to weeds being established in the reclaimed area.	pbb	
17	Page 14	This page contains the statement that harvested soil will be placed over the surface area, ripped and seeded if the results of the testing for acid base accounting and salinity indicate that the tailings will not be harmful to plant growth and revegetative success. What will happen if the material is saline or acid forming?	pbb	
18	Pages 6 and 7	Please provide an estimate of the volume of soil to be salvaged from the Bawana waste dump expansion areas.	pbb	
19	Waste Dump Expansion	The Division suggests that when the waste dumps are regraded, the area at the toe be excavated as much as possible and that this material be used to cover the waste dumps. This would serve to decrease the amount of disturbance while providing additional soil—though probably subsoil—to put on the dumps.	pbb	

106.8 - Depth to groundwater, extent of overburden, geology

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
20	Page 28	The plan discusses the four water supply wells that are 200-600 deep and monitoring wells that are 167 feet deep. Please provide the geologic occurrence that this ground water is found in. The section of the plan that discusses groundwater alludes to no groundwater hundreds of feet below the pit yet these wells produce enough ground water to run the operation. Please clarify the explanation in this section to reflect the water that these wells encounter in relationship to the geologic occurrence.		

R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

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Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
21	Pages 34,35	See comment 20. Please clarify the explanation in this section to discuss the water that the wells encounter in relationship to the geologic occurrence. Statements in this section lead one to believe that groundwater is nonexistent, yet water rights are filed and water is currently being pumped from several 8 inch wells 200-600 feet deep. This section needs a better explanation of the occurrence of groundwater and how it is protected.	TM	

R647-4-110 - Reclamation Plan

110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
22	Table 1	This table gives acreage figures for areas that will be reclaimed following mining. After a meeting and discussion on January 3, 2012, it was determined that CS Mining LLC has some confusion over what represents reclamation. It was relayed during that meeting that it can include regrading and seeding as well as regrading, seeding, and topsoiling. In this meeting, we specifically discussed reclamation of the tailings impoundment and the Bawana mine. It was determined that the Table 1 could be revised to incorporate these new concepts of reclamation and accompanying this revised table would a new reclamation treatments map. The plan acreage and bonded acreage depends on reclamation treatments, what areas will be reclaimed and how they will be reclaimed.	TM	
23	Page 14	<p>Reclamation of the tailings impoundment depends on a number of factors and it was discussed in a recent meeting held on January 3, 2012, that any tailings deposited in the tailings impoundment will be potentially reprocessed in an acid leach and then put into a much larger impoundment. This would leave an empty impoundment or the tailings impoundment would end up as a future process solution pond. The operator needs to pick a scenario that they feel is the most realistic and develop a reclamation plan using this scenario. Rule R-647-4-111.4 Reclamation Practices. requires that all deleterious or potentially deleterious materials be removed from the site or left in an isolated or neutralized condition such that adverse environmental effects are eliminated or controlled.</p> <p>There is only enough soil stockpiled around the tailings, mill, and concentrator area to apply about 2.5 inches of soil. At this rate, the tailings must be essentially suitable as a growth medium, so they should be tested for soil characteristics, including salinity (sodium adsorption ratio and electrical conductivity), texture, pH, and nutrients (N, P, K). Depending on the results of these tests, it may be necessary to supplement the tailings with organic matter. If the tailings are excessively saline or have an unacceptable pH, it may be necessary to develop a plan to cover them with overburden or something similar.</p> <p>Please provide a more comprehensive plan for reclaiming the tailings area.</p>	TM and pbb	

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Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
24	Page 43 and Figure 13a	Page 43 says there will be a four-foot safety berm around the Hidden Treasure and Bawana pits, but Figure 13a indicates the berm around the Bawana pit will only be three feet high. Please resolve this discrepancy.	pbb	
25	Omission	The plan says portions of the old Bawana pit will be backfilled, but it does not further discuss reclamation of this area. Will soil be spread over this area, and will it be seeded? If soil is to be used, please identify the source, how much soil there will be, and how this will affect reclamation of any other area.	pbb	

110.5 - Revegetation planting program

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
26	Page 42	The first sentence of the third paragraph doesn't make sense and needs to be reworded. As written it is, "Prior to placement of topsoil on the tailings pond The surface would be topsoiled followed by ripping on the contour . . .".	pbb	

R647-4-112 - Variance (List all variances requested and make a finding if approving.)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
27	Page 46	The operator proposes a variance to leave the water system for agriculture or wildlife use. Please detail what portions of the water system would be left and how they will benefit agriculture and wildlife. This variance was not approved in the original approval.	pbb	
28	Page 47	The plan contains a request for a variance on reseeding the berms. This variance was not approved and should be removed from the plan.	pbb	
29	Page 47	The Division previously approved a variance from meeting revegetation standards for the pits and safety berms, but part of this variance is probably not needed and could be removed. One of the revegetation success standards is that revegetation can be considered successful when vegetation has been established within practical limits. The practical limit for establishing vegetation on the pit walls is basically what volunteers in these areas.	pbb	

R647-4-113 – Surety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
30		Please use the Division's forms for calculating the reclamation cost estimate. The current bond in Appendix F was approved in 2007. The bond on page 50 has no backup data.	whw	